We claim:

1. A method for culturing primary hepatocytes comprising plating primary hepatocytes in the presence of an anti-oxidant(s) and a second agent, wherein said second agent is (1) a functional inhibitor of an enzyme that generates reactive oxygen and reactive nitrogen species, (2) an agent that directly inhibits the reactive species, or (3) an agent that increases intracellular glutathione, wherein said primary hepatocytes maintain function for at least dive days.

2. The method of claim 1, wherein the anti-oxidant is tocopherol succinate or a scavenger of the hydroxyl radical.

3. The method of claim 2, wherein the hydroxyl radical scavenger is mannitol.

4. The method of claim 1, wherein the second agent is a glutathione precursor or an inhibitor of nitric oxide.

5. The method of claim 4, wherein the glutathione precursor is 2-oxo-thiazolidine.

6. The method of claim 4, wherein the nitric oxide inhibitor is N^G-methylarginine.

7. The method of claim 1, wherein the anti-oxidant and second agent is 2-oxo-thiazolidine and tocopherol succinate.

8. The method of claim 1, wherein the anti-oxidant and second agent is N^G-methylarginine and mannitol.